



Informații personale

Nume / Prenume **Popescu Gh. Dumitru**
 Adresă institut Calea 13 Septembrie, nr. 13, sector 5, Bucuresti
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 Naționalitate Română
 Data nașterii 26.10.1947
 Sex Masculin

Experiența profesională

Perioada	1.09.2001 – prezent
Funcția sau postul ocupat	Cercetător științific gradul I
Activități și responsabilități principale	Transport transmembrantar; Rețele neuronale artificiale; Elasticitatea biomembranelor; Lipozom pulsatoriu.
Numele și adresa angajatorului	Institutul de Statistică Matematică și Matematică Aplicată „Gh. Mihoc-C. Iacob” București, Departamentul de Modelare Matematică în Științele Mediului și Vieții, Academia Română. Str. 13 Septembrie, nr.13, sector 5, 050711, Bucuresti,
Tipul activității sau sectorul de activitate	Cercetare stiintifica Director interimar (1.04. 2008-30.06.2008)
Perioada	01.09.2000 – 31.08.2001; 1.09.2001-1.09.2012 (1/2 norma)
Funcția sau postul ocupat	Profesor universitar asociat. Cercetător științific gradul I.
Activități și responsabilități principale	Predare curs „Rețele neuronale artificiale” (2003-2007). Cercetare stiintifica.
Numele și adresa angajatorului	Catedra de Fiziologie Animala și Biofizică. Facultatea de Biologie, Universitatea din București. Spl. Independentei, nr. 91–95, sector 5.
Tipul activității sau sectorul de activitate	Elasticitatea biomembranelor artificiale si naturale; Bionanotehnologie; Biologie moleculara; Rețele neuronale artificiale. Sinteze biochimice.
Perioada	01.04.1991– 31.08.2000
Funcția sau postul ocupat	Cercetator științific gradul II (1.12.1993-31.08.2000) Cercetător științific gradul III (1.04.1991-30.11.1993);
Activități și responsabilități principale	Cercetare stiintifica: Biofizica Membranelor; Biologie Moleculara; Microscopie Electronica.Biomatematica Sef Laborator de Biofizica Membranelor.

	Membru al Consiliului Stiintific
Numele și adresa angajatorului	Institutul de Biologie, Academia Română. Spl Independentei, 296, sector 6, 060031, Bucuresti
Tipul activității sau sectorul de activitate	Simulare moleculară dinamică. Modelarea transportului prin biomembrane.
Perioada	12.07.1980 – 31.03.1991
Funcția sau postul ocupat	Biofizician principal
Activități și responsabilități principale	Biofizica membranelor biologice și microscopie electronică
Numele și adresa angajatorului	Institutul de Științe Biologice București
Tipul activității sau sectorul de activitate	Sef Laborator de Microscopie Electronica (1.11.1985-31.03.1991)
Perioada	15.02.1977 – 12.07.1980
Funcția sau postul ocupat	Cercetător științific
Activități și responsabilități principale	Implementarea tehnologiei CANDU pentru centrala nucleara de la Cernavoda
Numele și adresa angajatorului	Institutul de Reactori Nucleari Energetici, str. Campului, nr.1, Mioveni, 115400, jud. Arges.
Tipul activității sau sectorul de activitate	Fizica reactorilor nucleari
Perioada	01.08.1970 – 15.02.1977
Funcția sau postul ocupat	Fizician stagiar (1.08.1970-31.07.1973); Cercetător științific (1.08.1973-15.02.1977)
Activități și responsabilități principale	Fizică nucleară. Surse noi de energie.
Numele și adresa angajatorului	Institutului de Fizică Atomică, str. Atomistilor, nr. 407, Măgurele, 077125, jud. Ilfov.
Tipul activității sau sectorul de activitate	Cercetare experimentală în domeniul reactorilor nucleari
Educație și formare	
Perioada	1982 - noiembrie 1990
Calificarea / diploma obținută	Diploma de doctor în fizică (1990)

Domenii principale studiate/	Fizică - studii doctorale
Numele și tipul instituției de învățământ	Facultatea de Fizică, Universitatea din București
Perioada	1 octombrie 1965 – 30 iunie 1970
Calificarea / diploma obținută	Diplomă de licență
Domenii principale studiate	Fizica nucleara
Numele și tipul instituției de învățământ	Facultatea de Fizică, Universitatea din București
Perioada	15 septembrie 1961 – 30 iunie 1965
Calificarea / diploma obținută	Diplomă de maturitate
Domenii principale studiate	Studii liceale
Numele și tipul instituției de învățământ	Liceul „Emanuil Gojdu”, Oradea
Perioada	15 sept. 1954 – iunie 1961
Numele și tipul instituției de învățământ	Scoala generala din com. Danciulesti, jud. Gorj
Aptitudini și competențe personale	
Limbi straine cunoscute	Engleza, franceza
Competenta calculator	Limbaje de programare: FORTRAN. C ⁺⁺ . Programe pentru calculator: MATLAB, ORIGIN
Proiecte internaționale	<ol style="list-style-type: none"> 1. Proiect ROMLISS Institutul de Biologie, Bucuresti, Univ. Nottingham, Experimental and theoretical studies of ion transport across natural and artificial membranes, 1993–1995, Director partea română; 2. Contr.nr.3452.19.05.2015/IBB:nr.1788/19.05.2015.Grant finantat: Islanda, Liechtenstein, Norvegia. <i>Sistem național de monitorizare pe termen lung a bioacumulării metalelor grele aeropurtate (BIOMONRO)</i>” din Programul RO04 ”Reducerea substantelor periculoase”.Expert statistica

Proiecte/ contracte naționale	<ul style="list-style-type: none"> – 6 contracte de cercetare la IFA-Magurele si IRNE-Pitesti, 1975–1980. Responsabil; – 6 contracte de cercetare la Institutul de Științe Biologice București, 1980–1986. Responsabil; – Program de cercetare; MEI, Rolul interaciunilor localizate la interfetele de separare a fazelor din biomembrane asupra transportului ionic, 1991–1995, Director. – 6 granturi de cercetare [CNCSU-MEI(1), 1995; Academia Romana (2), 1996–1998; ANSTI (1), 1999–2000; MEC/CNCSIS(1), 2011-2002] Tema: Interactiuni intermoleculare in biomembrane; Proprietati elastice si formarea porilor lipidici transmembranari; Fluctuatii ale grosimii si miscari termice colective in bistraturi lipidice plane si sferice. Director. – Proiect 50A1-687/2003, CNCSIS, 2003–2005; 344/10.2004 PNCDI-VIASAN, 2004–2006 Studiul interactiunii substantelor farmacologice din clasa flavonoide lor si polifenolilor cu membrane artificiale; mecanisme ale depresiei si anxietatii prin metode de simulare moleculara, 2003–2005 Director.
Activitate didactica	<ul style="list-style-type: none"> – Laborator de Biofizică, 1982 – 1983, Universitatea din București, Facultatea de Biologie. – Conducator științific pentru lucrari de licență: 1991 – 1997, Facultatea de Biologie, Universitatea din București 1993 – 1997, Facultatea de Fizică, Universitatea din București – Selecționare și îndrumare pentru specializare la Universitatea din Nottingham, Anglia, 1993 – 1995, Facultatea de Fizică, Facultatea de Biologie, Universitatea din București. – Cursul de biofizică și metabolism, 1996 – 1997, Facultatea de Biologie, Universitatea din București – Cursul de rețele neuronale artificiale (program de master, neurobiologie) 2003–2006, Facultatea de Biologie, Universitatea din București. – Conducator de doctorat in cadrul Universitatii din Bucuresti, domeniul “Științele Naturii” din anul 2004. – Membru in 30 comisii de referenti pentru sustinerea publica a tezei de doctorat.
• Publicații:	<ul style="list-style-type: none"> – 2 cărți: Editutura Universitatii din Bucuresti, 2009; Editura Lambert Academic Publishing, Germania, 2012 – 6 capitole în cărți publicate de edituri straine; – 13 capitole în carti publicate de edituri românești; – 104 articole publicate în reviste cu referenti; – 26 articole publicate în proceedings; – 141 abstracte în volumele unor conferințe, congrese internaționale, conferinte interne;
Premii si distinctii	<ul style="list-style-type: none"> • Premiul „Emil Racovita” al Academiei Romane pentru anul 1990

Informatii suplimentare	<ul style="list-style-type: none"> • Fondator al revistei „Romanian Journal of Biophysics” • Membru al unor societati stiintifice: Societatea Romana de Biofizica Pura si Aplicata; Societatea Romana de Fizica; Societatea Romana de Biologie Celulara, • Expert evaluator pentru proiecte de cercetare stiintifica: CNCSIS; ANCS. • Index Hirsch:14 • Citari: 555
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LIST OF PUBLICATIONS

A. Doctoral thesis

D. Popescu 1990. Cercetari privind formarea, stabilitatea si proprietatile bioagregatelor supramoleculare membranare. Facultatea de Fizica, Universitatea din Bucuresti.

B. Books

1. Dumitru Popescu, Maria Luiza Flonta. Teoria retelelor neuronale artificiale. Vol. I. Editura Universitatii din Bucuresti, Bucuresti, pp. 264, 2009.

2. Dumitru Popescu. The pulsatory lipid vesicle dynamics under osmotic stress. **Lambert Academic Publishing and AV Akademikerverlag, Saarbruecken, Germany, 2012. (ISBN 978-3-659-11086-3)**

C. Articles or chapters in peer-reviewed collective volumes

1. Dumitru Petru Iga, Dumitru Popescu, Valentin Ion Remus Niculescu *En Block* Approach of Structure Elucidation of Linear Isomeric Aldohehexoses as Related to Aldaric (Saccharic) Acids. **Invited review paper.** In: Current Approaches in Science and Technology Research, 2021

2. Dumitru Petru Iga, Dumitru Popescu, Valentin Ion Remus Niculescu. Fine Tune Balance of Hydrophobic-Hydrophylic Relationship of Amphiphilic Compounds by Partial Reduction and Methylation. **Invited review paper.** In: Current Approaches in Science and Technology Research, 2021

3. Dumitru Popescu, Liviu Movileanu, Stelian Ion, Aurel Popescu. Elastic properties of bilayer lipid membranes and pore formation. **Invited review paper.** In: **Membrane Science and Technology “Planar Lipid Bilayers (BLMs) and Their Applications.” Chapter 5, Vol. 7. Eds.: H. T. Tien and A. Ottova, Elsevier Science, Amsterdam. pp. 173–204, 2003.**

4. Liviu Movileanu, Dumitru Popescu. The birth, life and death of statistical pores into a bilayer membrane. **Invited review paper.** **Recent Research Developments in Biophysics. Chapter 4, Vol. 3** Part I. Ed. S. G. Pandalai, Transworld Research Network, International Publisher of Review Books in all Areas of Science, Kerala, pp.61-86, 2004.

5. Dumitru Popescu, Liviu Movileanu, Alin Gabriel Popescu. The behaviour of the closed lipidic bilayer under osmotic stress. **Invited review paper.** Mathematical Biology Research Trends. Chapter 11, Ed: Lachlan B. Wilson, Nova Science Publishers, NY, pp. 275–294, 2008.

6. Ionela Mirela Neagoe, **D. Popescu**, L. Lazar, V. I. R. Niculescu, S. Miclos. Human cryptosporidiosis: species, subgenotypes, differences in pathogenity and clinical manifestations and mathematical methods for DNA sequence analysis. *Invitaded chapter*. **Advances in Medicine and Biology. Chapter 7, Vol. 103**, Ed. Leon V. Berhardt, Nova Science Publishers, NY, pp. 105-166, 2016.

7. Rodica Dumitrescu, Marin Andrei, **Dumitru Popescu**. The assesement of radiosensitivity of root interphase cells in Phaseolus Vulgaris L.. **In: Current Problems and Techniques in Cellular and Molecular Biology**. Eds. C. Craciun and A. Ardelean, Mirton Timisoara, pp 571-574, 1996.

8. **Dumitru Popescu**. Drumul parcurs in viata, pana la absolvirea liceului. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.1. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 222–233, 2011.

9. **Dumitru Popescu**. Dumnezeu este fizician. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.2. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 221–235, 2012.

10. **Dumitru Popescu**. Dialectica fizicii: De la Esop la Lipozomul Pulsatoriu. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.2. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 232–241, 2012.

11. **Dumitru Popescu**. Un altfel de interviu. Addendum-1. **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 238–260, 2015.

12. **Dumitru Popescu**. Teoria retetelelor neuronale artificiale (recenzie). **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 452–458, 2015.

13. **Dumitru Popescu**. Lipozomul pulsatoriu ca un biomicromotor in 2 timpi (recenzie). **In: NOI FIZICIENI SI POVESTILE TRECUTULUI (1965-1970)**, vol.3. Ed. Ion Craciun, Ars Docendi–Universitatea Bucuresti. pp 459–463, 2015.

14. **Dumitru Popescu**. **100 Gojdisti de prestigiu**, pp. 151-153, Aureo, Oradea, 2019

15. **Dumitru Popescu** O lectie de viata la chimie, pp.84, **Revista Colegiului National “Emanuil Gojdu”**, Oradea, Seria a IV-a, Nr.49–50, 2019

D. Articles in peer-reviewed publications

1. Ali Imran, **Dumitru Popescu**, Liviu Movileanu. Cyclic Activity of an Osmotically Stressed Liposome in a Finite Hypotonic Environment. **Langmuir**, **36**, 3659 – 3666, 2020.

2. Andrei-Dennis Voichitoiu, Florentina Duica, Dumitru Petru Iga, **Dumitru Popescu**, Dragos Cretoiu, Nicolae Suci. Alteration of biochemical balance of amphiphilic compounds by partial reduction and methylation. **Revista de chimie**, 2020 (in press) **1.755/2019**

3. Liviu Gr. Ixaru, **Dumitru Popescu**, A mathematical investigation on the active substance pulsatory release from a solution-charged liposome. **BioSystems**, **179**, 48–54, 2019.

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4. Dumitru Petru Iga, **Dumitru Popescu**, Silvia Gatman. Alternate modulation of biological activity of stress molecule, β -D-glucopyranosyl-cholesterol, by chemical modification of sugar moiety. Hypotheses concerning biochemical meaning of the new glycosides. *Revista de chimie*, **70(11)**, 3987–3990, 2019.
 5. **Dumitru Popescu**, Alin Gabriel Popescu. The influence of the external bath on the number of cycles of a lipid unilamellar vesicle under hypotonic conditions. *Romanian J. Biophys.* **28(4)**, 159–170, 2018.
 6. D. P. Iga, **D. Popescu**, Florentina Duica. Utilizarea exoglicozidazelor pentru analiza a doua substrate enzimatiche noi, β -D-xilopiranozil-4-nitrocatechina-1-il si α -lactosil-4-nitrocatechina-1-il. *Revista de chimie*, **68(8)**, 1771–1776, 2017.
 7. Valentin Ion Remus Niculescu, **Dumitru Popescu**, Ramona Anton, Liana Sandru. A new family of Woods – Saxon potentials with complex poles. *Romanian. J. Phys*, **61** (9-10), 1513–1518, 2016.
 8. **Dumitru Popescu**, Sorin Miclos, Iuliana Pasol, Valentin Ion Remus Niculescu. Wavelet and short time Fourier transformations - two complementary methods for spectral analysis of muscle electrical activity. *Romanian Reports in Physics*, **68** (2), 486–496, 2016.
 9. Ecaterina Maries, Alin Gabriel Popescu, **Dumitru Popescu**. The pulsatory liposomes releasing of the neurotransmitters inside to interneuronal synaptic cleft may be a possible device for the depression treatment. *Romanian J. Biophys.* **25** (2), 117–129, 2015.
 10. **D. Popescu**, Iuliana Pasol, S. Miclos. Spectral analysis of electrical activity of the triceps branchii muscle contraction. *Romanian J. Biophys.* **25(1)**, 35–45, 2015.
 11. Iuliana Paşol, D.-C. Irimia, **D. Popescu**. Correlations between muscle contraction and bone electrical activity. *Romanian J. Biophys.* **24(3)**, 185–197, 2014.
 12. Ionela Mirela Neagoe, **D. Popescu**, V.I.R. Niculescu. Applications of entropic divergence measures for DNA segmentation into high variable regions of *Cryptosporidium* spp. Gp60 gene. *Romanian Reports in Physics*, **66(4)**, 1078–1087.
 13. Ionela Mirela Neagoe, **D. Popescu**, V.I.R. Niculescu. Alternative methods for statistical characterization and quantification of *Cryptosporidium* spp. gp60 gene variability. *Romanian Reports in Physics*, **66(3)**, 683–692, 2014.
 14. Ionela Mirela Neagoe, S. Miclos, **D. Popescu**, D. Savastru, V.I.R. Niculescu, M. Damian, L. Lazar, S. Dontu, M. Tautan. Wavelet spectrogram - based DNA analysis for the assessment of *Cryptosporidium* spp. Gp60 subgenotypes variation. *Optoelectron. Adv. Mater.-Rapid Comm.* **8** (7–8), 814–819 2014.
 15. Ionela Mirela Neagoe, S. Micloş, **D. Popescu**, D. Savastru, D. Steriu, S. Dontu, V.I.R. Niculescu, M. Tautan. DNA structural information from *Giardia intestinalis* tpi gene assemblages using the wavelet spectrogram analysis. *J. Optoelectron. Adv. Mater.* **16** (3–4), 408–413, 2014.

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16. Iuliana Pasol, D-C. Irimia, **D. Popescu**. Electrical activity in bone: comparative research made to active persons versus sedentary persons. *Discobolul* **1(37)**, 46-51, 2013.
17. D. Popescu, **A. G. Popescu**. Determination of the parameters characterizing a cycle of the pulsatory vesicle. *Romanian J. Biophys.* **21(2)**, 125–138, 2011.
18. A. G. Popescu, **D. Popescu**, B. Amuzescu, S. Ion. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. III. The liposome relaxing. *Romanian J. Biophys.* **20(3)**, 223–234, 2010.
19. **D. Popescu**, A. G. Popescu, B. Amuzescu, E. Maries. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. II. The pore appearance. *Romanian J. Biophys.* **20(2)**, 171–181, 2010.
20. **D. Popescu**, A. G. Popescu, B. Amuzescu. Pulsatory liposome – A possible biotechnological device for controlled drugs delivery. I. The liposome swelling. *Romanian J. Biophys.* **20 (1)**, 37–46, 2010.
21. **Dumitru Popescu**, Mathematical modelling of the pulsatory lipid vesicle dynamics under osmotic stress. *Proceedings of the Romanian Academy, Series A*, **11(2)**, pp. 108–115, 2010.
22. **Dumitru Popescu**, Dumitru Petru Iga. Transmembranare Delivery of Biological Active Substances by Pulsatory Liposomes. *Rev. Chim.* **61(1)**, 78–81, 2010.
23. **Dumitru Popescu**, Alin Gabriel Popescu. The working of a pulsatory liposome. *J. Theor. Biol.*, **254**, pp. 515–519, 2008.
24. L. Movileanu, **D. Popescu**, S. Ion, A. Popescu. Transbilayer pores induced by thickness fluctuations. *Bulletin of Mathematical Biology.* **68(6)**, 1231–1255, 2006.
25. **Dumitru Popescu**, Corneliu Nicolae Zaharia. Mathematical modelling of the drug delivery by liposomes used as carriers to the target place, *Studies and Researches in Virology*, **36(2)**, 133–137, 2006.
26. C.N. Zaharia, **D. Popescu**. Docking simulation of hypericine molecule on a supposed active site of serotonin transporter, *Studies and Researches in Virology*, **36(1)**, 45–51, 2006.
27. **D. Popescu**, C.N. Zaharia, I. Stelian, M.L. Flonta. Compensation of the neurotransmitters deficiency in the synaptic cleft. *Romanian J. Biophys.* **16(3)**, 189–204, 2006.
28. **D. Popescu**, I. Stelian, A.G. Popescu, Nicoleta Neacșu, Maria Luiza Flonta. The effect of lipid bilayer hydration on transbilayer pores appearance. *Romanian J. Biophys.* **16(1)**, 39–56, 2006.
29. **D. Popescu**, C.N. Zaharia, Ecaterina Maries, The rolle of structurale simmetry of some molecules inserted in lipidic bilayer. *Studies and Researches in Virology*, **35(2)**, 173–178, 2005.
30. Beatrice Macri, **D. Popescu**, Maria-Luiza Flonta, Gheorghe Stoian. The effect of hypericine molecules on lipidic membranes. *Studies and Researches in Virology*, **35(1)**, 57–63, 2005.

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31. C.N. Zaharia, **D. Popescu**, M. Stoian. New methods to study some basic mechanisms of neuropsychiatric disorders. *Studies and Researches in Virology*, **34(1)**, 63–69, 2004.
32. B. Amuzescu, S. Ion, **D. Popescu**, L. Movileanu, Beatrice Macri, Maria-Luiza Flonta. Thermal group motion creates stochastic pores in plane phosphatidylcholine bilayers. *Romanian J. Biophys.* **12(1–2)**, 37–52, 2002.
33. **D. Popescu**, S. Ion, Maria Luiza Flonta, Appearance of pores through black lipid membranes due to collective thermal movement of lipid molecules, *Annals of Bucharest University*, **2**, anul **L**, 185–192, 2001.
34. **D. Popescu**, S. Ion, L. Movileanu, Florentina Pluteanu, Speranța Avram, Maria-Luiza Flonta. Elastic Waves Induce The Appearance of pores in a lipid bilayer membrane. *Romanian J. Biophys.* **11(3–4)**, 163–170, 2001.
35. **Dumitru Popescu**, Carol Prunescu, Paula Prunescu. Substances transport through endothelial pores owing to hydrodynamic effects in sinusoids of rat liver. *Romanian J. Biophys.* **11(1–2)**, 65–73, 2001.
36. Rodica Dumitrescu, **D. Popescu**, M. Andrei. The gamma radiation effect on cells of two zones of *Allium Sativum* L. root after radioprotective chemical treatment. *Romanian J. Biophys.* **10(1–2)**, 68–78, 2000.
37. **D. Popescu**, Maria–Luiza Flonta, S. Ion. Attraction energy through van der Waals–London dispersion forces between coplanar unparallel linear hydrophobic chains. *Romanian J. Biophys.* **10(1–2)**, 83–88, 2000.
38. Irina Holobiuc, Marian Verzea, Elena Marcela Badea, **Dumitru Popescu**. Studiul embriogenezei polinice la formele parentale si la hibrizii F₁ de grau rezultati din incrucisarea dialela (6x6). *Researches of Vegetale and Animal Genetic*, **6**, 225–235, 2000.
39. **D. Popescu**, L. Movileanu, S. Ion, Maria–Luiza Flonta. Hydrodynamic effects on the solutes transport across endothelial pores and hepatocytes membranes. *Physics in Medicine and Biology*, **45(11)**, 157–165, 2000.
40. **Dumitru Popescu**, Victor Gheorghe, Romeo Popa, Mihai Ionescu. The dynamic simulation of a phospholipid molecule in a lipid bilayer. *Romanian J. Biophys.* **9(3–4)**, 197–210, 1999.
41. Rodica Dumitrescu, **D. Popescu**, M. Andrei. The combined effect of gamma radiation of Co⁶⁰ with different chemical on the cell of the radicular vegetative tip of *Allium sativum* L. *Rev. Roum. Biol.* **44(1–2)**, 63–70, 1999.
42. Romeo Popa, **Dumitru Popescu**. Obtaining mean diameter of spherical vesicles or nuclei from photographs of their cross sections. *Rev. Roum. Biochim.* **36(1–2)**, 53–56, 1999.
43. Liviu Movileanu, **Dumitru Popescu**. A theoreticaal model for the association probabilities of saturated phospholipids from two component biological lipid membranes. *Acta Bioteoretica*, **46(4)**, 347–368, 1999.
44. Rodica Dumitrescu, M. Andrei, **D. Popescu**. The assessment of radiosensitivity of root interphase cells in *Allium Sativum* L.. *Acta Horti Botanici Bucurestiensis*, **27**, 87–92, 1998.
45. L. Movileanu, **D. Popescu**, Maria – Luiza Flonta. The hydrophobic acylchain effect in the lipid domains appearance through phospholipid bilayers. *J. of Molecular Structure (THEOCHEM)*, **434(1-3)**, 213-227, 1998.

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46. Rodica Dumitrescu, M. Andrei, **D. Popescu**. The assessment of cell radiosensitivity following the treatment of gamma radiation combined with procaine and tyastime in *Phaseolus Vulgaris* L.. *Rev. Roum. Biol.* **42(1–2)**, 71–78, 1997.
47. Constanta Rucareanu, **D. Popescu**, J. S. Popescu, C. N. Zaharia. A patch clamp study of procaine effects on the gramicidin channel reconstituted in planar lipid bilayer. *Romanian J. Biophys.* **7(4)**, 279–285, 1997.
48. **D. Popescu**, R. Popa. 1997. The determination of phase transition temperatures of phospholipid bilayers based on van der Waals interaction breakdown. *Romanian J. Biophys.* **7(4)**, 321–325.
49. **Dumitru Popescu**, Delia Radulescu, Mihai Bota. A comprehensive study of all important features of association process in single chain amphiphile binary mixtures. *Romanian J. Biophys.* **7(1–2)**, 47–58, 1997.
50. **Dumitru Popescu**, Liviu Movileanu, Gheorghe Victor, Grigore Turcu. Stability and instability properties of aggregation of single chain amphiphiles into binary mixtures. *Bulletin of Mathematical Biology*, **59(1)**, 43–61, 1997.
51. Liviu Movileanu, **Dumitru Popescu**, Gheorghe Victor, Grigore Turcu. Selective association of phospholipids as a clue for the passive flip-flop diffusion through bilayer lipid membranes. *BioSystems*, **40(3)**, 263–275, 1997.
52. **Dumitru Popescu**, Liviu Movileanu. Global ratio of efficiency in a single chain binary mixture. *J. Biol. Syst.*, **4(3)**, 425–432, 1996.
53. Liviu Movileanu, **Dumitru Popescu**. Differential effects on the association probabilities: A three-dimensional approach. *BioSystems*, **36(1)**, 43–53, 1995.
54. Liviu Movileanu, **Dumitru Popescu**. Aspects of self-and cross- association hydrophobicity into single chain binary mixtures. A computer study. *Acta Biochimica Polonica*. **42(1)**, 89–96, 1995.
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